

## REMARKS/ARGUMENTS

### 35 USC § 112, Second Paragraph

Claims 1-5, 7-8, 14, 17-20 were rejected under 35 USC § 112 second paragraph as being indefinite for reciting the terms "an oxidizable compound", and "electrophilic compound", "an electron donating group", "a complex", and "a second stability towards the oxidation". The applicant respectfully disagrees.

It appears to be the Office's position that "...the claims do not define what each of them is with respect to its chemical structure and its functional group...". However, the applicant points out that the meaning of the terms is not given by the claims, but the *meaning of every term used in a claim should be apparent from the prior art or from the specification and drawings at the time the application is filed*. During patent examination, the pending claims must be given the *broadest reasonable interpretation consistent with the specification*. In re Morris, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997); In re Prater, 415 F.2d 1393, 162 USPQ 541 (CCPA 1969). Furthermore, *when the specification states the meaning that a term in the claim is intended to have, the claim should be examined using that meaning* in order to achieve a complete exploration of the applicant's invention and its relation to the prior art. In re Zletz, 893 F.2d 319, 13 USPQ2d 1320 (Fed. Cir. 1989).

Still further, it is well established that a chemical compound is *not indefinite merely because a structure is not presented* (see e.g., In re Fisher, 427 F.2d 833, 166 USPQ 18 (CCPA 1970)). In fact, chemical compounds may be claimed by a name that *adequately describes the material* to one skilled in the art (see e.g., Martin v. Johnson, 454 F.2d 746, 172 USPQ 391 (CCPA 1972)). Alternatively, or additionally, a compound may be *claimed by a combination of physical and chemical characteristics* (see e.g., Ex parte Brian, 118 USPQ 242 (Bd. App. 1958)). In light of the above, proper inquiry should then focus on the degree of descriptiveness of the terms in the present claims (e.g., distinctness of particular physical and chemical characteristics of the compound of claims 1-5, 7-8, 14, 17-20).

With respect to the term "an oxidizable compound", it is pointed out that oxidation and reduction are basic and simple processes in the art of chemistry, and numerous reference books will readily provide consistent definitions for an oxidizable compound. For example, oxidation

of a compound is defined as loss of one or more electrons from the compound (The Concise Columbia Encyclopedia, Columbia University Press, NY; ISBN 0-231-05678-8). Thus, it is apparent to a person of ordinary skill in the art that an ***oxidizable compound is a compound from which an electron can be reduced.***

Similarly, with respect to the term "electrophilic compound", the applicant points out that the term "electrophile" is well known in the art of chemistry, and numerous reference books will readily provide consistent definitions for an electrophilic compound. For example, the term electrophilic is defined as relating to an electrophile, which is defined as an electron-attracting atom or agent that tends to accept electrons (The American Heritage Dictionary of the English Language, Fourth Edition, Houghton Mifflin Company). Thus, it is apparent to a person of ordinary skill in the art ***that an electrophilic compound is a compound that attracts an electron.*** Further reference is made to the specification on page 4, lines 1-7.

With respect to the term "an electron donating group", it is entirely unclear to the applicant what part in that term is considered indefinite as that term clearly refers to a group that donates an electron. A short Web search will provide plentiful and consistent examples and definitions for electron donating groups (see *e.g.*, [http://www.unomaha.edu/~destack/2250/Problems/EWG\\_EDG\\_resonance\\_only.pdf](http://www.unomaha.edu/~destack/2250/Problems/EWG_EDG_resonance_only.pdf)). Thus, it is apparent to a person of ordinary skill in the art ***that an electron donating group is a group that donates (provides) an electron.*** Again, reference is made to the specification on page 4, lines 1-7.

Similarly, the applicant points out that the term "complex" is well understood by a person of ordinary skill in the art. Furthermore, the applicant points out that the specification expressly elaborates on contemplated complexes (see *e.g.*, page 7, lines 1-16). Thus, it is apparent to a person of ordinary skill in the art ***that a complex is an association between at least one electron donating group of one compound and an electrophilic compound.***

Lastly, with respect to the term "a second stability towards the oxidation", the applicant points to the specification on page 7, line 20 to page 8, line 14, in which ***express definitions are provided.*** In that light, it is unclear how that term could be held indefinite and vague

**Claim 2** was rejected under 35 USC § 112 second paragraph as being indefinite for use of the term "R' and R" optionally comprise". The applicant disagrees. The inclusion of an optional substituent and/or heteroatom is well accepted practice in the USPTO and the applicant points to U.S. Pat. Nos. 6,787,546, 6,762,187, 6,759,535, etc. Nevertheless, claim 2 was amended to even more clearly point out that the specified groups may include a heteroatom and may be cyclic.

**Claim 3** was rejected under 35 USC § 112 second paragraph as being indefinite for use of the term "the oxidizable compound further comprises" and "a first electron donating group and a second electron donating group". The applicant disagrees. It is entirely unclear to the applicant what would be indefinite in a claim directed to a compound in which the compound includes a second functional group or substituent. The Examiner appears to argue that there would be "...other additional components besides the only oxidizable compound..." However, *it is not the composition that further comprises, but the compound that further comprises*. Inclusion of a second functional group into a claimed molecule is trivial and conforms with USPTO rules and practice (*supra*).

Similarly, the Examiner appears to argue that is would be "...uncertain as to what they are respectively and which the electron donating group is the first one relative to the second electron donating group in the structurally unknown oxidizable compound..." With respect to the structural uncertainty, the applicant refers to his comments above. With respect to the "first electron donating group", the *applicant amended the term to refer to the antecedent "electron donating group" of claim 1*.

**Claim 4** was rejected under 35 USC § 112 second paragraph as being indefinite for use of the term "the electron donating group and a second electron donating group". The applicant disagrees. Once more, it is entirely unclear to the applicant what would be indefinite in a claim directed to a compound that recites a second electron donating group: The Examiner states that "...there is uncertain as to which the electron donating group is the first one relative to the second electron donating group..." *The applicant respectfully requests clarification*.

**Claim 5** was rejected under 35 USC § 112 second paragraph as being indefinite for use of the terms "the electron donating group" and "the oxidizable compound". The applicant once

more disagrees. With respect to the term "the electron donating group", *proper antecedent basis in provided in amended claim 3*. With respect to the term "the oxidizable compound" the same arguments as provided above apply (page 5 this paper, second and third paragraph).

**Claim 7** was rejected under 35 USC § 112 second paragraph as being indefinite for use of the term "the electron donating group comprises". The *applicant agrees and amended claim 7* accordingly to point out that the electron donating group is selected from a specific group of radical.

**Claims 8, 19, and 20** were rejected under 35 USC § 112 second paragraph as being indefinite for use of the term "the electrophilic compound comprises". The applicant respectfully disagrees. It should be readily apparent to a person of ordinary skill in the art that a compound (or substituent) may be electrophilic and that this compound (or substituent) may include a metal. *The objected term recites the compound, and not the electrophilic atom or group*. Thus, the meaning of the objected term is definite.

**Claim 14** was rejected under 35 USC § 112 second paragraph as being indefinite for use of the term "the oxidation comprises a reaction of an alcohol group in the oxidizable compound into a keto group". *The applicant agrees and amended claim 14 accordingly*.

**Claim 17** was rejected under 35 USC § 112 second paragraph as being indefinite for use of the terms "a compound", "an oxidizable compound", "an electrophilic compound", "an electron donating group", "a complex", and "a second stability towards the oxidation". The applicant respectfully disagrees. The same arguments as provided above apply (pages 5-6 this paper).

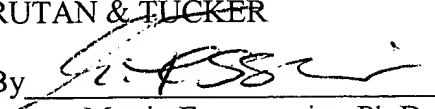
**Claim 18** was rejected under 35 USC § 112 second paragraph as being indefinite for use of the terms "the electron donating group" and "the second electron donating group". The applicant disagrees. *Proper antecedent basis is provided for both terms*.

In view of the present amendments and arguments, the applicant believes that all claims are now in condition for allowance. Therefore, the applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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